

Listing and Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A peptide including the amino acid sequence RPKHPIKHQG (SEQ ID NO : 1), AVAVSQEAN (SEQ ID NO : 2) or SEGVALDPAR (SEQ ID NO : 3) or an analogue thereof.
2. (Original) A peptide as claimed in claim 1 wherein SEQ ID NO :1, 2 or 3 is the N-terminal sequence of the peptide.
3. (Currently amended) A peptide as claimed in claim 1 ~~or claim 2~~ wherein the peptide can be co-purified with each of the other peptides including the amino acid sequence shown in SEQ ID NO :1, SEQ ID NO : 2 or SEQ ID NO : 3 from a 6-30 kDa fraction of whey protein of cow's milk.
4. (Currently amended) A peptide as claimed in ~~any one of claims 1 to 3~~ claim 1 wherein the peptide, in combination with one or other of the peptides including the amino acid sequence of SEQ ID NO :1, 2 or 3 reduces the level of milk production in a lactating cell.
5. (Original) A composition for influencing the rate of milk production by a lactating cell, the composition including a peptide including the sequence RPKHPIKHQG (SEQ ID NO :1) or an analogue thereof.
6. (Original) A composition for influencing the rate of milk production by a lactating cell, the composition including a peptide including the sequence AVAVSQEAN (SEQ ID NO : 2) or an analogue thereof.

7. (Original) A composition for influencing the rate of milk production by a lactating cell, the composition including a peptide including the sequence SEGVALDPAR (SEQ ID NO : 3) or an analogue thereof.
8. (Original) A composition for influencing the rate of milk production by a lactating cell, the composition including peptides including at least two of the sequences RPKHPIKHQG (SEQ ID NO : 1), AVAVSQEAN (SEQ ID NO : 2) or SEGVALDPAR (SEQ ID NO : 3) or analogues thereof.
9. (Original) A method of influencing milk secretion in animals, the method including the steps of administering at least one peptide including the amino acid sequence RPKHPIKHQG (SEQ ID NO : 1), AVAVSQEAN (SEQ ID NO : 2) or SEGVALDPAR (SEQ ID NO : 3) or an analogue thereof.
10. (Original) A method as claimed in claim 9 wherein the animal is selected from the group comprising a cow, goat and sheep.
11. (Original) A method as claimed in claim 9 wherein the animal is a human.
12. (Currently amended) A method of modulating the milk secretion rate of a lactating cell, the method including the steps of[:];
 [[-]] selecting a composition including at least one peptide including the amino acid sequence RPKHPIKHQG (SEQ ID NO : 1), AVAVSQEAN (SEQ ID NO : 2) or SEGVALDPAR (SEQ ID NO : 3) or an analogue thereof,
 [[-]] administering the composition to the animal through the appropriate targeting of the mammary gland, and
 [[-]] exposing the cells of the mammary gland to a concentration of the composition sufficient to induce an inhibitory feedback mechanism which reduces lactation by the mammary gland cells.

13. (Original) A method as claimed in claim 12 wherein the composition is administered through intra-ductal administration.
14. (Original) A method as claimed in claim 12 wherein the delivery of the composition is by means of a bolus of peptide which is preferably encapsulated.
15. (Original) A method as claimed in claim 14 wherein the encapsulation material is an oil such as mineral oil.
16. (Currently amended) A method as claimed in ~~any one of claims 12 to 15~~ claim 12 wherein the composition is administered at a dose yielding a final concentration of peptides in milk in the range 0.01-1.6 micromolar.
17. (Cancelled)
18. (Original) A method of treating mastitis, the method including the step of administering a therapeutically useful amount of a at least one peptide including the amino acid sequence RPKHPIKHQG (SEQ ID NO : 1), AVAVSQEAN (SEQ ID NO : 2) or SEGVALDPAR (SEQ ID NO : 3) or an analogue thereof.
19. (Original) A composition for influencing lactation in animals, the composition including a peptide including the amino acid sequence RPKHPIKHQG (SEQ ID NO : 1), AVAVSQEAN (SEQ ID NO : 2) or SEGVALDPAR (SEQ ID NO : 3) or an analogue thereof.
20. (Original) A composition as claimed in claim 19 wherein the animal is a non-human animal.
21. (Original) A composition as claimed in claim 19 wherein the animal is a cow, goat or sheep.

22. (Original) An antibody which specifically binds a peptide including the amino acid sequence shown in SEQ ID NO :1, SEQ ID NO : 2 or SEQ ID NO : 3 or analogues thereof.
23. (Original) An antibody which specifically binds a peptide consisting of the amino acid sequence shown in SEQ ID NO :1, SEQ ID NO : 2 or SEQ ID NO : 3 or analogues thereof.
24. (Cancelled)